DOCUMENT RESUME

ED 308 953 PS 018 130

AUTHOR Berkowitz, Marvin W.; Keller, Monica
TITLE Longitudinal Predictors of Teacher Ratings of Adolescent Academic and Social Performance.
PUB DATE Apr 89
NOTE 11p.; Paper presented at the Biennial Meeting of the Society for Research in Child Development (Kansas City, MO, April 27-30, 1989).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; Achievement Rating; Adolescents; Children; Elementary Secondary Education; Foreign Countries; Friendship; Intelligence Quotient; Logical Thinking; Longitudinal Studies; Perspective Taking; *Predictor Variables; *Social Behavior; Socioeconomic Status; *Teacher Student Relationship

ABSTRACT

This study explored differential patterns of variables at 7 and 9 years of age that predict teacher evaluations of academic and social performance at 15 years of age. A total of 101 Icelandic school children were assessed on a variety of variables at ages 7, 9, 12, and 15. Only two variables significantly entered into the regression equation predicting academic grades. Friendship reasoning at 9 years and Raven IQ at 7 years accounted for nearly 40% of the variance in grades at 15 years. Three variables significantly predicted teacher ratings of 15-year-olds' social behavior. Friendship stage at 9 years, SES at 7 years, and perspective-taking at 9 years accounted for almost 25% of the variance in social behavior at 15 years. It was concluded that teacher ratings of disparate domains such as academic performance and social skills are neither non-overlapping nor isomorphic phenomena. (RH)

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LONGITUDINAL PREDICTORS OF TEACHER RATINGS OF ADOLESCENT ACADEMIC AND SOCIAL PERFORMANCE

Marvin W. Berkowitz
Marquette University

Monica Keller
Max Planck Institute for
Human Development and Education

PS 018130

Paper presented at the Biennial Conference of the Society for Research in Child Development, Kansas City, April 1989

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ABSTRACT

Student academic and social progress has been widely examined, but these two domains of performance have not been adequately tested in a single longitudinal predictive study. The aim of this study was to explore the differential patterns of variables at 7 and 9 years of age that predict teacher evaluations of academic and social performance at 15 years of age. One hundred and one Icelandic school children were assessed on a variety of variables at ages 7, 9, 12, and 15. For the present study, Raven IQ and SES at 7 years, Selman friendship stage, Chandler perspective-taking stage, and syllogistic reasoning at 9 years, and gender were used to predict academic grades and teacher ratings of social behavior at 15 years.

Only two variables significantly entered into the regression equation predicting academic grades. Friendship reasoning at 9 years and Raven IQ at 7 years accounted for nearly 40% of the variance in grades at 15 years. Three variables significantly predicted teacher ratings of 15 year old social behavior. Friendship stage at 9 years, SES at 7 years, and perspective-taking at 9 years accounted for almost 25% of the variance in social behavior at 15 years. It was concluded that teacher ratings of disparate domains such as academic performance and social skills are not non-overlapping phenomena but neither are they isomorphic.

RATIONALE

Teachers frequently evaluate students both overtly and covertly on a variety of characteristics. There has long been a controversy over exactly what a teacher is evaluating, e.g., actual performance vs. expected performance, competence vs. similarity to the teacher, etc. The two most common areas of teacher evaluation are academic performance, usually in the form of school grades, and social performance, usually in the form of formal comments or teacher/parent reports. Both of these domains have been widely examined, but not in a single longitudinal study. The aim of this study was to explore the differential patterns of variables that longitudinally predict teacher evaluations of student academic and social performance.

METHODS

SUBJECTS. 101 Icelandic school children were studied at ages 7, 9, 12 and 15 as part of a longitudinal investigation of child development and socialization. For this study, data collected when the subjects were 7, 9 and 15 were analyzed.

PROCEDURE. At each time of measurement, subjects were administered a very diverse and lengthy battery of assessments, including social cognitive interviews, personality questionaires, and cognitive tasks. Data were also collected from teachers, school records and parents, including school grades, teacher behavioral reports, and family demographics. For the present study only the variables listed in Table 1 were examined.

RESULTS

The data were analyzed in two stepwise multiple regression equations. Both analyses included the same set of six predictor variables listed in Table 1: Gender, SES, IQ, Friendship Stage, Perspective-Taking Stage, Logical Stage. One analysis predicted teacher ratings of academic performance at 15 years (Grades). The other analysis predicted teacher ratings of social performance at 15 years (Social Rating).

As presented in Table 2, two variables entered significantly into the regression equation predicting Grades. Friendship Stage at 9 years and IQ at 7 years together accounted for nearly 40% of the variance in Grades at 15 years. Friendship Stage was the first variable entered, accounting for 28% of the variance and IQ accounted for an additional 11% of the variance.

As presented in Table 3, three variables entered significantly into the regression equation predicting Social Rating. Friendship Stage at 9 years, SES at 7 years, and Perspective-taking Stage at 9 years together accounted for nearly 25% of the teacher ratings of social performance at 15 years. Friendship Stage entered the equation first accounting for 13% of the variance, SES second accounting for an additional 6%, and Perspective-taking third accounting for a further 5%.

DISCUSSION

The present investigation was designed to explore whether teachers' evaluations of students' academic and social performance could be predicted longitudinally. Furthermore, the study was designed to determine if these teacher evaluations of two separate domains, academic and social behavior, would be predicted differentially.

The set of predictors chosen were selected because all were expected to predict at least one of the teacher rating variables. Indeed the set of predictors was able to significantly predict both criterion variables. There was both overlap and differentiation between the two prediction equations. Friendship reasoning at 9 years was the strongest predictor of both Grades and Social Behavior at 15 years. However, IQ predicted Grades but not Social Behavior and SES and Perspective-taking predicted Social Behavior but not Grades. Gender and Logical Reasoning did not predict either criterion variable.

While it is not surprising that IQ is related to school grades and not social behavior and that the reverse relationship exists for SES and perspective-taking stage, it is surprising that the strongest predictor of both student behaviors at 15 years is friendship reasoning at 9 years. It may simply be that friendship reasoning stage, as conceptualized by Selman, presents the greatest blend of both social understanding and cognitive maturity. It was somewhat surprising that stage of logical reasoning did not enter into the predictions, but that is likely due to its overlap with friendship reasoning.

In conclusion, it seems that teacher ratings of students' academic and social behavior are neither independent nor redundant phenomena.

TABLE 1

VARIABLES ANALYZED

PREDICTORS

1. GENDER

2. SES (7 years of age). A classification of parental occupation created and validated specifically for Icelandic culture (Bjornsson, Edelstein & Kreppner, 1977).

3. IQ (7 years). Raven IQ test.

4. FRIENDSHIP REASONING STAGE (9 years). Adapted Selman coding of oral interview about six friendship issues.

5. PERSPECTIVE-TAKING STAGE (9 years). Average stage score on two Chandler and Greenspan (1972) cartoon series tasks. One story depicts a bystander observing an unexpected sadness response to a gift. The other depicts an act of vandalism.

6. LOGICAL REASONING (9 years). Average stage score from three syllogisms.

CRITERION VARIABLES

1. TEACHER RATING OF ACADEMIC PERFORMANCE (15 years). Average school grades for the preceding academic year.

2. TEACHER RATING OF SOCIAL PERFORMANCE (15 years). Composite subscale of selected items from (a) Schaeffer's "Classroom behavior inventory", (b) Kohn's "Social competence scale", and (c) Peterson and Quay's "Behavior problem checklist". The subscale was defined a priori based on a content analysis of all of the items from the three scales, and was found to have an internal reliability coefficient of .95. It was further validated by factor analysis of the items from the three scales.

TABLE 2

MULTIPLE REGRESSION PREDICTING
GRADES AT 15 YEARS

Predictor	Partial R2	Model R2
FRIENDSHIP	.281	.281*
IQ	.113	.394*
LOGIC STAGE	.004	.398
SES	Not in equation	
PERSPECTIVE-TAKING	Not in equation	
GENDER	Not in equation	

*p<.001

TABLE 3

MULTIPLE REGRESSION PREDICTING
SOCIAL BEHAVIOR

Predictor	Partial R2	Model R2
FRIENDSHIP	.135	.135**
SES	.064	.199*
PERSPECTIVE-TAKING	.045	.244*
IQ	.007	.251
LOGIC STAGE	.008	.259
GENDER	Not in equation	

**p<.02
*p<.05